IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

POWER INTEGRATIONS, INC., Plaintiff,	)	**REDACTED PUBLIC VERSION**
v.	)	C.A. No. 04-1371-JJF
FAIRCHILD SEMICONDUCTOR INTERNATIONAL, INC., and FAIRCHILD SEMICONDUCTOR CORPORATION, Defendants.	)	

DEFENDANTS' OPENING CLAIM CONSTRUCTION BRIEF

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TABLE OF CONTENTS

Page

I. INTRODUCTION. 1

II. LEGAL STANDARDS. 2

A. The Court Should Construe the Claims in Light of the Intrinsic Evidence. 2

B. It Is Improper for Power Integrations to Seek to Construe the Claims to Read on the Accused Devices or Avoid the Prior Art. 2

III. U.S. PATENT NO. 4,811,075. 3

A. The Technology. 3

1. The '075 Patent describes a high voltage MOS transistor structure. 3

2. The '075 Patent disclaimed DMOS during prosecution. 3

3. "DMOS" is defined as "double-diffused MOS." 4

4. There is no support in the intrinsic record for Power Integrations' attempted limitation of its disavowal of DMOS. 5

B. Construction of Disputed Terms and Phrases. 7

1. "MOS transistor". 7

2. "substrate". 8

3. "a pair of laterally spaced pockets of semiconductor material of a second conductivity type within the substrate" 10

4. "a surface adjoining layer of material of the first conductivity type on top of an intermediate portion of the extended drain region between the drain contact pocket and the surface-adjoining positions". 11

5. "substrate region thereunder which forms a channel". 12

6. "said top layer of material". 13

7. "being subject to application of a reverse-bias voltage". 13

IV. U.S. PATENT NOS. 6,107,851 AND 6,229,366. 14

A. Power Integrations' Alleged "Invention" Is an Extremely Narrow Implementation of a Prior Art Pulse Width Modulation Device. 14

1. PWM devices were known long before Power Integrations' alleged "inventions". 14

2. Power Integrations admits that PWM devices with "soft start circuits" were known in the prior art. 15

TABLE OF CONTENTS
(continued)

Page

3. Power Integrations admits that PWM devices with "frequency variation circuits" were known in the prior art. 16

4. Power Integrations "invention" was using a second, low frequency oscillator to implement the soft start and frequency variation circuits. 17

5. The claims of Power Integrations' Patents are broader than Power Integrations' alleged invention. 18

B. The Court should interpret "soft start circuit" in light of the intrinsic evidence. 19

1. A "soft start circuit" is a "circuit that minimizes inrush current at start up." 19

2. Power Integrations improperly suggests that a "soft start circuit" is a means-plus-function element. 20

3. Were the Court to construe the "soft start circuit" elements as means-plus-function limitations, all of the embodiments in the specification must be considered. 23

4. Power Integrations improperly seeks to exclude embodiments disclosed in the '366 Patent. 25

a. As a matter of law, means-plus-function terms include all corresponding structures disclosed in the specification, even those that are in the prior art. 25

b. A capacitor is a soft start circuit that suppresses inrush currents during "a portion" of start up time. 26

C. The Court Should Not Incorporate Additional Limitations from the Preferred Embodiment Into the "Frequency Variation Signal" Element 27

1. Consistent with the intrinsic evidence, a "frequency variation signal" is a signal that is used to vary the frequency of the oscillation signal. 27

2. Power Integrations' proposed construction of "frequency variation signal" improperly imports limitations from the preferred embodiment 28

a. The frequency variation signal need not be internal. 29

b. The frequency variation signal need not vary cyclically in magnitude during a fixed period of time. 30

DOCSSV1:438298.8

TABLE OF CONTENTS
(continued)

Page

c. The frequency variation signal need not be used to modulate the frequency of the oscillation signal within a predetermined frequency range. 31

V. U.S. PATENT NO. 6,249,876. 32

A. Background. 32

B. The Court should interpret "frequency jitter" as defined in the '876 Patent. 33

C. The Court should give "coupled" its plain and ordinary meaning. 33

D. The voltages and voltage sources elements of claims 17-19 must be considered together when construed. 34

1. The "primary voltage" is a voltage generated by the primary voltage source. 35

2. The "secondary voltage" is a voltage generated by the secondary voltage sources. 36

3. The "secondary voltage sources" are distinct from the primary voltage source. 36

4. The "supplemental voltage" is simply a voltage other than the primary or secondary voltages. 37

5. "Combining" voltages means adding together two or more different voltages. 37

VI. CONCLUSION. 38

TABLE OF AUTHORITIES

Page

FEDERAL CASES

ACTV, Inc. v. *Hypertv Networks, Inc.*,
346 F.3d 1082 (Fed. Cir. 2003)....7

Apex Inc. v. *Raritan Computer, Inc.*,
325 F.3d 1364 (Fed. Cir. 2003)....23

Boss Control, Inc. v. *Bombardier Inc.*,
410 F.3d 1372 (Fed. Cir. 2005)....2

Chimie v. *PPG Indus.*,
402 F.3d 1371 (Fed. Cir. 2005)....4

Clearstream Wastewater Systems, Inc. v. *Hydro-Action, Inc.*,
206 F.3d 1440 (Fed. Cir. 2000)....27

Gemstar-TV Guide Int'l, Inc. v. *ITC*,
383 F.3d 1352 (Fed. Cir., 2004)....24

In re Paulsen,
30 F.3d 1475 (Fed. Cir. 1994)....8, 9

Karlin Tech., Inc. v. *Surgical Dynamics, Inc.*,
177 F.3d 968 (Fed. Cir. 1999)....31, 32, 36, 38

Linear Tech. Corp. v. *Impala Linear Corp.*,
379 F.3d 1311 (Fed. Cir. 2004)....22, 23, 24

N. Telecom Ltd. v. *Samsung Elecs. Co.*,
215 F.3d 1281 (Fed. Cir. 2000)....7

Phillips v. *AWH Corp.*,
415 F.3d 1303 (Fed. Cir. 2005)....2, 4, 5, 6, 21, 22, 34

Resonate Inc. v. *Alteon Websystems, Inc.*,
338 F.3d 1360 (Fed. Cir. 2003)....30, 31, 35

SciMed Life Sys. v. *Advanced Cardiovascular Sys., Inc.*,
242 F.3d 1337 (Fed. Cir. 2001)....32

TABLE OF AUTHORITIES
(continued)

Page

Semitool, Inc. v. Novellus Sys.
44 Fed. Appx. 949, 956 (Fed. Cir., 2002) 22

Southwall Tech., Inc. v. *Cardinal IG Co.*,
54 F.3d 1570 (Fed. Cir. 1995) 4, 6

Spring Windows Fashions LP v. *Novo Indus., L.P.*,
323 F.3d 989 (Fed. Cir. 2003) 6, 8

Telemac Cellular Corp. v. *Topp Telecom, Inc.*,
247 F.3d 1316 (Fed. Cir. 2001) 34

Vitronics Corp. v. *Conceptronic, Inc.*,
90 F.3d 1576 (Fed. Cir. 1996) 7

FEDERAL STATUTES

35 U.S.C. § 112 ¶ 6 .... 6, 20, 27

Defendants Fairchild Semiconductor International, Inc. and Fairchild Semiconductor Corporation (collectively, "Fairchild") respectfully submit their opening brief on the appropriate construction of select terms of Plaintiff Power Integrations, Inc.'s ("Power Integrations") patents.[1]

I. INTRODUCTION.

Power Integrations' patents are far from revolutionary. Power Integrations does not claim to have invented pulse width modulated ("PWM") devices or even the specific features discussed in the specifications of the Power Integrations patents. Instead, the Power Integrations patents claim a particular and specific embodiment of PWM devices. The problem faced by Power Integrations is that its claims either read squarely on the prior art, exclude the accused Fairchild devices, or both. Thus, a straight forward construction of the asserted claims – a construction that relies upon the intrinsic evidence – will ultimately result in Power Integrations' patents being found invalid and not infringed.

Determined to avoid this result, Power Integrations advances unsupported, litigation-inspired claim constructions. For some terms, Power Integrations seeks to avoid the prior art by reading in limitations found only in the preferred embodiment. For other terms, Power Integrations improperly seeks to read out limitations that are not found in the accused devices.

The Court should reject Power Integrations' tortuous constructions and simply construe the claims in light of the intrinsic evidence – the patents' claim language, specification, and file history. When the Court does so, it will be clear that it should adopt Fairchild's constructions.

Power Integrations has asserted U.S. Patent Nos. 4,811,075 (the "'075 Patent"); 6,107,851 (the "'851 Patent"); 6,229,366 (the "'366 Patent"); and 6,249,876 (the "'876 Patent").[2] These patents can be organized into two groups – (i) the '075 Patent, which claims a high voltage MOS device that incorporates specific semiconductor structures and (ii) the '851, '366 and '876 Patents, which claim circuitry for optional features that could be used in some PWM devices.

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[1] As set forth in Exhibit A, the parties have agreed upon several constructions. Exhibit B lists the disputed terms, Fairchild's construction, and what Fairchild believes to be Power Integrations' proposed construction.

[2] Power Integrations has asserted claims 1 and 5 of the '075 Patent, claims 1, 2, 4, 7, 9-11, 13, 16, and 17 of the '851 Patent, claims 1, 2, 8-10, 14, and 16 of the '366 Patent, and claims 1 and 17-19 of the '876 Patent. Copies of the '075, '851, '366, and '876 Patents are attached hereto as Exhibits C-F, respectively.

II. LEGAL STANDARDS.

A. The Court Should Construe the Claims in Light of the Intrinsic Evidence.

As the Federal Circuit has frequently stated, the words of a claim are generally given their ordinary and customary meaning. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*). "The ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art at the time of the invention, i.e., as of the effective filing date of that patent application." *Id.* at 1313.

To determine how one of ordinary skill in the art would have understood the claims, a Court should consider the patent's claims, its specification, and its prosecution history. *Phillips*, 415 F.3d at 1314. The Court may also consider extrinsic evidence, such as expert testimony, but such extrinsic evidence is viewed "in general as less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.* at 1318. "In sum, extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of the patent claim scope unless considered in the context of intrinsic evidence." *Id.* at 1319.

B. It Is Improper for Power Integrations to Seek to Construe the Claims to Read on the Accused Devices or Avoid the Prior Art.

It is only appropriate to consider the issues of invalidity and non-infringement ***after*** the claims have been construed in light of the intrinsic evidence. "Determining infringement requires two steps. First, the claim must be properly construed to determine its scope and meaning. Second, the claim as properly construed must be compared to the accused device or process." *Boss Control, Inc. v. Bombardier Inc.*, 410 F.3d 1372, 1376 (Fed. Cir. 2005). Indeed, the Federal Circuit's skeptical view of extrinsic evidence is, in part, due to the fact that litigation inspired materials may be biased. *Philips*, 415 F.3d at 1318.

Because of this litigation, Power Integrations has approached the claim construction process backwards. First, Power Integrations sought to determine a construction whereby its claims would be valid and infringed. Only then did Power Integrations search for evidence to bolster this outcome. Since Power Integrations' litigation-inspired constructions ignore – indeed, contradict – the intrinsic evidence, they must be rejected.

III. U.S. Patent No. 4,811,075.

A. The Technology.

1. The '075 Patent describes a high voltage MOS transistor structure.

The '075 Patent describes a high voltage MOS (metal-oxide semiconductor) transistor. High voltage MOS transistors were commonly used at the time of the '075's invention. The '075 purports to invent a "more efficient high voltage MOS transistor" that is "compatible with five volt logic." '075 Patent, 1:53-60.

As the '075 Patent acknowledges, it was well known in the prior art to combine high voltage MOS transistors with low voltage logic circuitry on the same integrated circuit:

> Self isolation technology is used for making high voltage MOS devices, particularly ***integrated high voltage devices in combination with low voltage control logic on the same chip***. The voltage is sustained by an offset gate, as a lightly doped extended drain region is used. Such devices can be considered as an IGFET or MOSFET in series with a single sided JFET. Two of such high voltage devices having opposite conductivity types can be used as a complementary pair on the same chip, with the device having an extended p-type drain being imbedded in an n-well in a p-substrate.

'075 Patent, 1:16-26 (emphasis added). Power Integrations thus does not claim to have invented the combination of such a high voltage MOS device with low voltage logic on the same chip. Nor, as indicated in the above passage, does Power Integrations claim to have invented the use of an extended drain region in a high voltage MOS device. Instead, Power Integrations purports to have invented a narrow example of such a prior art device that incorporates a layer of opposite conductivity on top of a portion of the extended drain region.

2. The '075 Patent disclaimed DMOS during prosecution.

As originally filed, the '075 Patent claimed a broad range of MOS transistors. During prosecution, however, Power Integrations narrowed its claims to avoid a prior art reference cited by the Examiner, and, in the process, disclaimed DMOS (double-diffused MOS) devices. As a result of this disavowal, the claims of the '075 Patent cannot cover DMOS.

It is well settled that this Court must consider the '075 Patent's prosecution history in construing its claims. *Phillips*, 415 F.3d at 1313. Consequently, statements made during prosecution concerning the scope of the claims must be given effect. "The prosecution history

limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution." *Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995). "The purpose of consulting the prosecution history in construing a claim is to exclude any interpretation that was disclaimed during prosecution." *Chimie v. PPG Indus.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005) (internal quotes omitted).

During prosecution, the Examiner rejected all claims of the '075 Patent as anticipated by U.S. Patent No. 4,626,879 ("Colak"). In response, Power Integrations argued that the claims of the '075 Patent did not cover DMOS devices such as those disclosed in Colak:

> Claim 19 [which issued as claim 1] also provides for a pair of laterally spaced source and drain contact pockets within the substrate as is customary for conventional MOS transistors and is thus, ***distinguished from DMOS devices which require a higher threshold voltage.***

See Exh. G, Amd (4/7/88), p. 6 (italicized emphasis added).

Despite this clear disavowal, the Examiner again rejected the pending claims in light of the Colak prior art patent. To overcome this second rejection, Power Integrations expressly reiterated that its claims were limited to MOS devices and did not cover DMOS devices:

> [C]laim 19 [which issued as claim 1] ***is limited to a MOS or MOSFET structure, while Colak shows a D-MOS device.***"

See Exh. H, Amd after Final (8/12/88), p. 3 (emphasis added). In light of these clear and unambiguous statements that the '075 Patent did not cover or claim DMOS devices, the Examiner allowed the pending claims.

Both parties agree that Power Integrations' statements made during prosecution of the '075 Patent constitute a clear disavowal of DMOS devices. *See*, Exh. I, Expert Report of Michael Shields, p. 6. Thus, there is no dispute. The claims of the '075 Patent must be construed to exclude DMOS devices.

3. "DMOS" is defined as "double-diffused MOS."

Although DMOS is not specifically defined in the specification of the '075 patent, it is well defined in the intrinsic evidence. Since Power Integrations made clear that its claims excluded DMOS devices such as those described in the Colak patent, the best way to determine

the scope of this disavowal is to consider how the intrinsic Colak reference defined DMOS. *See Philips*, 415 F.3d at 1317 ("The prosecution history which we have designated as part of the 'intrinsic evidence,' consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent.").

Colak broadly and clearly defines DMOS as "double-diffused MOS":

> The invention is in the field of metal-oxide-semiconductor (MOS) field-effect devices, and relates specifically to lateral ***double-diffused MOS (DMOS)*** field-effect transistors suitable for use in source-follower applications.

Exh. J, Colak, 1:10-14 (italicized emphasis added). Thus, when Power Integrations argued that its claims did not cover DMOS devices such as those disclosed in Colak, Power Integrations disclaimed all "double-diffused MOS (DMOS)" devices.

Colak's definition of DMOS is consistent with other intrinsic evidence. For instance, the Examiner also cited specific pages of a semiconductor textbook – Sze, *Physics of Semiconductor Devices*, Wiley & Sons N.Y. 1981 pp. 431-438, 486-491 ("Sze") – which, like Colak, is intrinsic evidence. *Philips*, 415 F.3d at 1317. Sze also defines DMOS as a "double-diffused MOS":

> Figure 53a shows the ***DMOS (double-diffused MOS)*** structure, where the channel length L is determined by the higher rate of diffusion of the p-dopant (e.g., boron), compared to the n^+-dopant (e.g., phosphorus) of the source.

Exh. K, Sze, at 489 (footnote omitted) (emphasis added).

4. There is no support in the intrinsic record for Power Integrations' attempted limitation of its disavowal of DMOS.

The claims of the '075 Patent are apparatus claims, not process or method claims. Thus, it makes perfect sense that, during prosecution, Power Integrations disclaimed DMOS, which is a ***structure***, not a process or method. Since all of the accused Fairchild devices are DMOS devices, however, Power Integrations now seeks to retreat from its unequivocal disavowal of DMOS devices by arguing that it only disavowed DMOS devices created through a "self-aligned" process (i.e., a process of making DMOS devices where both diffusions occur through the same hole). This makes no sense. The process whereby a structure is created is irrelevant to whether the structure anticipates an apparatus claim. Thus, disavowing a particular ***process***

would not have overcome the Examiner's rejections of the pending claims. Power Integrations must have disavowed the DMOS ***structure***, as described in Colak and Sze.

Had Power Integrations intended to disclaim only a ***process*** of making DMOS (rather than the resulting DMOS ***structure***) it could have done so. By broadly disclaiming DMOS devices rather than the narrower self-aligned DMOS process, Power Integrations disclaimed all DMOS ***structures*** regardless of whether these structures are made through a self-aligned process or by some other method.

Power Integrations cannot broadly disclaim DMOS during prosecution and now ask the Court to exclude only "self-aligned" DMOS from the claims of the '075 Patent. "A patentee may not state during prosecution that the claims do not cover a particular device and then change position and later sue a party who makes that same device for infringement." *Spring Windows Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003). "Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers." *Southwall*, 54 F.3d at 1576. It is also improper for Power Integrations to now attempt to use extrinsic evidence to contradict the unambiguous intrinsic evidence. "[W]hile extrinsic evidence can shed useful light on the relevant art, we have explained that it is less significant than the intrinsic record in determining the legally operative meaning of claim language." *Phillips*, 415 F.3d at 1317 (internal quotations omitted).

Power Integrations clearly, deliberately, and repeatedly disavowed DMOS to have the '075 Patent granted and Fairchild is entitled to the full scope of that disavowal. "The public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent." *Spring Windows*, 323 F.3d at 995. Competitors reviewing the '075 Patent would see the clear disavowal of DMOS devices and understand that the claims of the '075 Patent do not cover DMOS. "Competitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996). There is no way for a person reviewing

the prosecution history of the '075 Patent to determine that, contrary to its express statements, Power Integrations was only disclaiming the self-aligned DMOS, rather than all DMOS *devices*.

B. Construction of Disputed Terms and Phrases.

There is a presumption that words in a claim should be given their plain and ordinary meaning. This presumption is rebutted, however, "if the inventor has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of scope." *ACTV, Inc. v. Hypertv Networks, Inc.*, 346 F.3d 1082, 1091 (Fed. Cir. 2003). "The prosecution history must be considered because it may demonstrate that a patentee intended to deviate from a term's ordinary and customary meaning or that the patentee disclaimed or disavowed subject matter, narrowing the scope of the claim terms." *Id.* at 1091. To rebut the presumption that claims should be given their plain and ordinary meaning, the patentee's disclaimer must be made with "reasonable clarity and deliberateness." *N. Telecom Ltd. v. Samsung Elecs. Co.*, 215 F.3d 1281, 1294 (Fed. Cir. 2000).

To construe the terms of the '075 Patent, the Court should look to the intrinsic record, which includes the prosecution history. *Vitronics*, 90 F.3d at 1582 ("It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history. Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language.") The claims of the '075 Patent must be construed to give full effect to Power Integrations' clear and unambiguous disavowal of DMOS devices during prosecution.

1. "MOS transistor".

Fairchild's Construction	Power Integrations' Construction
A metal-oxide-semiconductor transistor having the elements set forth in the claim, **which excludes a DMOS transistor**.	A MOS transistor is a metal-oxide-semiconductor device that can control the flow of current between a source terminal and a drain terminal. In common usage in the industry, "high voltage" generally refers to a device that can operate at 50V and above. **Power Integrations disagrees with Fairchild that this term, or this claim, excludes all application to devices that may be referred to as "DMOS" transistors.**

"MOS transistor" should be interpreted to exclude the full scope of DMOS as expressly and intentionally disavowed by Power Integrations during prosecution. Power Integrations improperly attempts to restrict its disavowal to one process of making DMOS, a self-aligned process. Power Integrations never represented that distinction to the Patent Office, however, and cannot now rely upon disfavored extrinsic evidence to support its position when the intrinsic evidence plainly defines DMOS as "double-diffused MOS."

The term "MOS transistor" should be construed to exclude DMOS devices even though the term "DMOS" is not in the claims. *Spring Windows*, 323 F.3d at 995-996 ("We are unpersuaded by [patent owner]'s argument that the statements made during prosecution should be disregarded because the distinguishing features 'were not and are not reflected in the claims' and thus the statements simply constituted an error by the prosecuting attorney that should not be binding on the applicant."). During prosecution Power Integrations unambiguously limited its use of the term MOS to cover only conventional MOS, and to specifically exclude DMOS.

It also is appropriate to construe "MOS transistor" even though it only appears in the preamble because it gives meaning to the rest of claim 1 of the '075 Patent. "Terms appearing in a preamble may be deemed limitations of a claim when they give meaning to the claim and properly define the invention." *In re Paulsen*, 30 F.3d 1475, 1479 (Fed. Cir. 1994). In *Paulsen*, the Federal Circuit noted that although the term "computer" only appeared in the preamble, it "breathes life and meaning into the claims and, hence, is a necessary limitation to them." *Id.* Given the prosecution history, where Power Integrations excluded DMOS from "MOS transistor," it is necessary to construe the term to incorporate the disavowed scope into the claim.

2. **"substrate".**

Fairchild's Construction	Power Integrations' Construction
The physical material on which a transistor is fabricated.	A substrate as expressly defined in the '075 patent is the physical material on which a microcircuit is fabricated and may include subsequently formed or doped regions which are expressly provided for in the patent and referred to as a "secondary substrate" such as a well or epitaxial layer.

The parties do not dispute that a substrate is the physical semiconductor material on

which a transistor is fabricated. Rather, this term is in dispute because the parties disagree about what it means for the pockets and the channel to be "within the substrate." In a conventional lateral MOS device, source and drain regions (referred to in the claims as "pockets") are diffused directly into the substrate material. The channel of the transistor is then formed within the substrate between the two pockets. In contrast, in a DMOS device the source region is diffused into a region of different material, often referred to as a p-body region, that has been previously diffused into the substrate (hence the term "double-diffused"). The channel region is then formed in the p-body region, between the edge of the source diffusion region and the edge of the p-body region, rather than in the substrate.

Power Integrations specifically added the "within the substrate" limitation to its claims during prosecution in order to use this difference in the structure of conventional MOS and DMOS devices to distinguish the prior art:

> Claim 19 [which issued as claim 1] also provides for a pair of laterally spaced source and drain contact pockets <u>within the substrate</u> as is customary for conventional MOS transistors and is thus, ***distinguished from DMOS devices*** which require a higher threshold voltage.

See Exh. G, Amd (4/7/88), p. 6 (underlined emph. in original; italicized emph. added). Power Integrations further stated that its claims did not cover DMOS because in its claims the channel was formed in the substrate region between the pockets. Exh. H, Amd after Final (8/12/88), p. 3. Power Integrations distinguished its structure from a DMOS structure in which the source pocket and channel are both formed within a p-body region, rather than directly "within the substrate."

Power Integrations attempts to render its "within the substrate" limitation virtually meaningless by construing any doped region, including the DMOS p-body diffusion, as part of the substrate. In other words, Power Integrations is attempting to recapture the scope it relinquished during prosecution by incorporating the p-body region of a DMOS structure into the term "substrate." With such a construction, Power Integrations will argue that forming a pocket and channel in a p-body region is the same as forming a pocket directly "within the substrate," which eviscerates the reason it gave during prosecution for distinguishing Colak. If "substrate"

could include such subsequently formed or doped regions, as Power Integrations' construction implies, then the claims would not be distinguished from Colak.

Power Integrations' construction is unsupported by the specification, which defines the terms "substrate" and "secondary substrate":

> ***It should be noted that the term "substrate" refers to the physical material on which a microcircuit is fabricated.*** If a transistor is fabricated on a well of n or p type material within a primary substrate of opposite type material, ***the well material can be considered a secondary substrate.*** Similarly, if a transistor is fabricated on an epitaxial layer or [e]pi-island that merely supports and insulates the transistor, ***the epitaxial layer or epi-island can be considered a secondary substrate.*** An epi-island is a portion of an epitaxial layer of one conductivity type that is isolated from the remaining portion of the epitaxial layer by diffusion pockets of an opposite conductivity type. When complimentary transistors are formed on the same chip, the well in which one complimentary transistor is embedded is formed by the same diffusion as the extended drain region for the other transistor.

'075 Patent, 4:55-5:3 (emphasis added).[3] This passage, however, simply provides that a conventional MOS transistor could be formed entirely in an epitaxial layer, epi-island or well of material within the primary substrate, as depicted for example in Figures 2 and 3 of the '075 Patent. In that situation, the material on which the transistor is formed is referred to as a secondary substrate because it takes the place of the primary substrate. This passage does not suggest or support the idea that the source diffusion pocket and the channel may be formed in a separate p-body region as in the disclaimed DMOS device.

Indeed, claim 1 specifically requires that both pockets be formed within ***the same substrate.*** This language cannot be construed to cover a pair of laterally spaced pockets where one of the pockets is formed in a "primary" substrate and the other is formed in a "secondary" substrate (i.e., p-body region) because Power Integrations disclaimed such a construction during prosecution when it distinguished the double diffused structure of Colak.

3. "a pair of laterally spaced pockets of semiconductor material of a second conductivity type within the substrate"

Fairchild's Construction	Power Integrations' Construction
Two laterally spaced pockets of	"[P]air of laterally spaced pockets of semiconductor

3 The only support for "substrate" in the patent was that added in the prosecution history. As such, it constitutes new matter, and is either invalid or the patent must be given a later filing date.

Fairchild's Construction	Power Integrations' Construction
semiconductor material of the opposite conductivity type from the substrate present within the physical material on which a microcircuit is fabricated. **Power Integrations disclaimed reading this element on a DMOS transistors.**	material of a second conductivity type" should be given its plain, English language meaning. "Within the substrate" refers to anywhere within the boundaries of the substrate. Such a pocket can be within a well region and still be "within the substrate" as recited in the claim. **Power Integrations disagrees with Fairchild that this phrase, or this claim, excludes all application to devices that may be referred to as "DMOS" transistors.**

Power Integrations' disavowal of DMOS should be given effect in this claim limitation because Power Integrations specifically traversed the prior art Colak reference on the basis that this feature is "distinguished from DMOS devices," which were described in Colak. *See* Amd dated 4/7/88, p. 6. In response to the Patent Office's rejection of all claims of the '075 Patent in light of Colak, Power Integrations stated:

> Claim 19 [which issued as claim 1] ***also provides for a pair of laterally spaced source and drain contact pockets <u>within the substrate</u>*** as is customary for conventional MOS transistors and is thus, ***distinguished from DMOS devices*** which require a higher threshold voltage.

Exh. G, Amd (4/7/88), p. 6 (underlined emph. in original; italicized emph. added). Accordingly, this claim language should not be construed to cover a DMOS structure where the source pocket is formed in a p-body region instead of "within the substrate."

4. **"a surface adjoining layer of material of the first conductivity type on top of an intermediate portion of the extended drain region between the drain contact pocket and the surface-adjoining positions".**

Fairchild's Construction	Power Integrations' Construction
A layer of material of the same conductivity as the substrate above a portion of the extended drain region and between the drain contact pocket and each of the surface adjoining positions of the extended drain region. **Power Integrations disclaimed reading this element on a DMOS transistor.**	A layer of material of the same conductivity type as the substrate located on top of a portion of the extended drain region between the drain contact pocket and surface adjoining positions of the extended drain region. **Power Integrations disagrees with Fairchild that this phrase, or this claim, excludes all application to devices that may be referred to as "DMOS" transistors.**

The parties do not disagree as to how this language should be construed. The only disagreement is to the breadth of DMOS disclaimed by Power Integrations. As discussed above, Fairchild is entitled to rely upon Power Integrations' full disavowal of DMOS. Power

Integrations' disavowal of DMOS should be given effect in this claim limitation because Power Integrations specifically limited the scope of this element to traverse the prior art Colak reference on the basis that this feature is distinguished from DMOS devices. In response to the Patent Office's rejection of all claims of the '075 Patent in light of Colak, Power Integrations stated:

> Claim 19 [which issued as claim 1] further provides for a substrate having a surface, and insulating layer on the surface of the substrate covering at least that portion between the source contact pocket and the nearest surface-adjoining position of the extended drain region, and a gate electrode on the insulating layer electrically isolated from the substrate region thereunder which forms a channel laterally between the source contact pocket and the nearest surface-adjoining position of the extended drain region. Thus, claim 19 [which issued as claim 1] ***is limited to a MOS or MOSFET structure, while Colak shows a D-MOS device.***

Exh. H, Amd. after Final (8/12/88), p. 3 (underlined emph. in original; italicized emph. added).

5. "substrate region thereunder which forms a channel".

Fairchild's Construction	Power Integrations' Construction
A channel is formed laterally in the substrate between the source contact pocket and the nearest surface-adjoining position of the extended drain region. **Power Integrations disclaimed reading this element on a DMOS transistor.**	This phrase should be afforded its plain meaning and simply refers to the physical location of the "channel" being formed underneath the gate region. Nothing in the patent precludes the channel from being formed in "well" material or otherwise doped material beneath the insulated gate. **Power Integrations disagrees with Fairchild that this phrase, or this claim, excludes all application to devices that may be referred to as "DMOS" transistors.**

Power Integrations' disavowal of DMOS should be given effect in this claim limitation because Power Integrations specifically limited the scope of this element so that it covers only a MOS rather than DMOS structure. *See* Amd after Final dated 8/12/88, p. 3. In response to the PTO's rejection of all claims of the '075 Patent in light of Colak, Power Integrations stated:

> Claim 19 [which issued as claim 1] further provides for a substrate having a surface, and insulating layer on the surface of the substrate covering at least that portion between the source contact pocket and the nearest surface-adjoining position of the extended drain region, and a gate electrode on the insulating layer electrically isolated from the ***substrate region thereunder which forms a channel*** laterally between the source contact pocket and the nearest surface-adjoining position of the extended drain region. Thus, claim 19 [which issued as claim 1] ***is limited to a MOS or MOSFET structure, while Colak shows a D-MOS device.***

Exh. H, Amd after Final (8/12/88), p. 3 (underlined emph. in original; italicized emph. added).

As Power Integrations states, the channel in a conventional MOS structure is formed in the substrate material between the source pocket and the extended drain. In contrast, in a double-diffused, or DMOS structure, the channel is formed within the first diffused region rather than directly in the substrate material. Power Integrations intentionally relinquished reading this claim element on a double-diffused structure and cannot now try to recapture what it gave up.

6. **"said top layer of material".**

Fairchild's Construction	Power Integrations' Construction
This term lacks antecedent basis and cannot be construed.	The top layer of material in this limitation refers to the surface adjoining layer.

This term lacks antecedent basis and cannot be construed. According to the Manual of Patent Examining Procedure:

> A claim is indefinite when it contains words or phrases whose meaning is unclear. The lack of clarity could arise where a claim refers to "said lever" or "the lever," ***where the claim contains no earlier recitation or limitation of a lever and where it would be unclear as to what element the limitation was making reference.***

Exh, L, MPEP § 2173.05(e), (italicized emphasis added). Since the "top layer of material" was never mentioned in the claims, "said top layer of material" does not refer to anything.

Power Integrations' construction improperly seeks to define the "said top layer of material" as "said surface adjoining layer", which is a different element in claim 1. If the drafter intended to refer to the "surface adjoining layer," he would have said "said surface adjoining layer," and not "said top layer of material." The fact that the drafter did not repeat the "surface adjoining layer" limitation creates the presumption that he ***did not*** wish to repeat that limitation. Therefore, "said top layer of material" must be construed to mean something other than "surface adjoining layer," if it can be construed at all.

7. **"being subject to application of a reverse-bias voltage".**

Fairchild's Construction	Power Integrations' Construction
Experiencing a bias voltage applied to a semiconductor junction with polarity that permits little or no current to flow.	Reverse-bias in this context is a voltage applied across a rectifying junction with a polarity that provides a high-resistance path. It means that the surface adjoining layer of material recited in the claims is connected in some way to the substrate or "ground" potential.

Power Integrations' proposed definition improperly seeks to import the limitation that "surface adjoining layer of material recited in the claims is connected in some way to the substrate or 'ground' potential." Not only is there no support for this construction, the intrinsic evidence supports Fairchild's construction.

The '075 Patent states in three places, "the top layer is either connected to the substrate or left floating." *See*, '075 Patent, Abstract, lines 12-13, 2:61-63, and 4:9-10. The word "floating" indicates that the top layer is not connected to anything like a "ground potential." Furthermore, claim 1 specifies "an extended drain region… extending laterally each way… to surface adjoining positions" thereby blocking access to the substrate by a top layer "between the drain contact pocket and the surface-adjoining positions." '075 Patent, 5:62-78. Power Integrations' construction contradicts the intrinsic evidence.

IV. U.S. Patent Nos. 6,107,851 and 6,229,366.

The '366 Patent is a divisional of the '851 Patent. As such, the specification of the '366 Patent is essentially identical to the specification of the '851 Patent.[4] Indeed, the claims of the '366 and '851 Patents are very similar and contain many of the same elements.

A. Power Integrations' Alleged "Invention" Is an Extremely Narrow Implementation of a Prior Art Pulse Width Modulation Device.

1. PWM devices were known long before Power Integrations' alleged "inventions".

Cell phones, computers, televisions, and other familiar electronic devices have one thing in common – they plug into the wall to get power or charge their batteries. Unfortunately, wall power is unsuited for such electronic devices. Thus, power supplies are used to convert the powerline voltage from the wall (110 volts, 60 hertz alternating current in the United States) into a form that is useful for powering electronic devices. This conversion is needed because the electronic circuits within electronic devices generally require (i) much lower voltages (for example 5 volts), (ii) direct current ("dc") rather than the alternating current that is distributed

[4] For this reason, citations will be provided to either the '366 or '851 specification but not both. In all cases, the quoted passage is also contained in the other patent.

through the powerlines, and (iii) a source of voltage that is electrically isolated from the powerlines (for reasons of safety). *See* '851 Patent, 1:10-15.

Power supply design is complicated by the fact that most electronic devices need varying levels of power (or "loads") at different times. For instance, a laptop computer may need a small amount of power when it is in "standby" mode, more power when it is being used without disk access, and even more power when it accesses its hard drive (since additional energy is needed to spin the drive). A power supply must provide a constant DC voltage for all of these usage levels.

While there are many ways of accomplishing this, the Power Integrations patents relate to a very specific technique – switching power conversion employing pulse width modulation. In a pulse width modulated – or, "PWM" – device, there is a switch that opens and closes cyclically to control the amount of power that will be provided. By changing or "modulating" the duty cycle of this switch (the fraction of time it is open or closed), a PWM switching power supply provides the proper amount of power, regardless of the load. As the pulse width is increased, more energy is transferred during each cycle from the power supply to the load. For example, when a laptop is in "standby" mode, the switch may be closed 10% of the time (as the power requirements are relatively minor). When the laptop is in normal use, the switch may be closed 30% of the time to meet the additional needs of the active device. When the hard drive is in operation, however, the switch may be closed 50% of the time as the drive requires more power.

Power Integrations admits that PWM devices were well known long before Power Integrations' alleged inventions. *See* '851 Patent, 1:8-3:37.

2. Power Integrations admits that PWM devices with "soft start circuits" were known in the prior art.

Over time, PWM devices became more sophisticated and incorporated additional features, such as a "soft start circuit". While Power Integrations claims these features, Power Integrations admits that it did not invent them. *See* '851 Patent, 2:56-3:8.

"Soft start" refers to minimizing inrush currents during the power supply's start up. *See* '851 Patent, 2:56-58 ("Soft start functionality is termed to be a functionality that reduces the

inrush currents at startup."). Soft start is sometimes useful because, as noted above, a PWM device will seek to provide a constant voltage. When the power supply is started, however, it is providing zero volts. The power supply will correctly interpret this as a need to increase the duration of time the switch is closed. If the duration is increased too quickly, however, the inrush of current can stress the device, which, over time, can cause failure.

A soft start circuit can be used to gradually increase the amount of time that the switch is closed and, thus, reduce the inrush currents during this start up. For instance, the PWM power supply may determine that the switch should be closed 95% of the time to meet the sudden load introduced when the power supply is turned on. The soft start circuit may limit this on-time to 5% in order to reduce the inrush of current and, thus, the stress. This 5% limit may be gradually increased over time until it no longer limits the on-time of the switch.

Power Integrations does not claim to have invented the soft start circuit. Such circuits were commonly used in non-PWM devices long before Power Integrations' alleged inventions. Indeed, Power Integrations does not even claim to have been the first to include a soft start circuit in a PWM device. In its '851 Patent, Power Integrations includes a lengthy discussion of prior art PWM devices that utilize soft start circuits. *See* '851 Patent, 2:56-3:8 and Fig. 1, described as "a known power supply utilizing a pulse width modulated switch, and external soft start...." Instead, as will be seen below, Power Integrations claims to have invented a very specific implementation of a soft start circuit that utilizes a second, low frequency oscillator.

3. Power Integrations admits that PWM devices with "frequency variation circuits" were known in the prior art.

One common problem with PWM devices is that they can result in electromagnetic interference ("EMI"). EMI is caused by the switch of the PWM device. Each time the switch opens or closes, it generates electromagnetic waves. If the frequency of the switch in the power supply is fixed, EMI will be concentrated at a fixed frequency. This may interfere with other appliances that are close to the PWM device. There are regulations that govern how much EMI can be released by electronic equipment containing a PWM power supply.

There are many ways to reduce or eliminate this interference. One prior art technique described by the '851 Patent involves "jittering" the frequency of the PWM switch. This jitter will not reduce the overall amount of EMI but will spread it out so that it is less of a problem.

For example, if the PWM switch opens and closes one million times a second, it operates at 1 MHz and most of the EMI generated by the PWM device will occur at a fixed frequency proportional to 1 MHz operation. If, however, the frequency of the PWM switch is varied so that it is sometimes at 0.9 MHz and sometimes at 1.1 MHz (and sometimes at other frequencies between), the interference would be spread out. The total amount of interference is the same but because it is spread over a range of frequencies rather than concentrated at a single frequency, the interference at any particular frequency will be reduced and may be inconsequential.

Power Integrations does not claim to have invented this frequency variation technique. Indeed, Power Integrations does not even claim to have been the first to use frequency variation with a PWM device. In its '851 Patent, Power Integrations includes a lengthy discussion of prior art frequency variation circuits used with PWM devices. *See* '851 Patent, 3:9-3:30 and Fig. 1, described as "a known power supply utilizing a pulse width modulated switch… and frequency jitter functionality." Instead, as will be seen below, Power Integrations claims to have invented a very specific implementation of a frequency variation circuit that utilizes the same low frequency oscillator utilized to implement Power Integrations' particular soft start circuit.

4. **Power Integrations "invention" was using a second, low frequency oscillator to implement the soft start and frequency variation circuits.**

Rather than invent PWM devices – or even PWM devices that incorporate soft start or frequency variation circuits – Power Integrations claims to have invented a very specific implementation of a PWM device that incorporates a second, low frequency oscillator that is used in the internal soft start and frequency variations circuits. Indeed, after describing prior art soft start and frequency variation circuits, Power Integrations' Invention Disclosure Form unambiguously states that Power Integrations' alleged invention was the inclusion of a second low frequency oscillator in a PWM device:

REDACTED

Exh. M, '851/'366 Invention Disclosure.

Thus, at the time of its alleged invention, Power Integrations clearly understood the breadth of the prior art and simply claimed to have invented a new way of implementing the old soft start and frequency variation concepts in a PWM device.

5. **The claims of Power Integrations' Patents are broader than Power Integrations' alleged invention.**

On May 18, 1998, Power Integrations filed the application leading to the '851 and '366 Patents. The application sought to distinguish the prior art by describing a PWM device with a second, low frequency oscillator used in the soft start and frequency variation circuits. *See* '851 Patent, Figs. 3, 6, and 9 (described as depicting the "preferred pulse width modulated switch" and "preferred regulation circuit").

During prosecution, the Patent Office issued a restriction requirement indicating that it believed that this single application contained two discrete inventions – one relating to "a PWM device with a frequency variation circuit" and another relating to "a PWM device with a soft start circuit". Exh. N, Office Action (8/18/89), p. 2. Rather than argue that its invention was a single PWM device that utilized a low frequency oscillator to implement both frequency variation and soft start circuits, Power Integrations accepted the Examiner's statement and filed a divisional application. Exh. O, Amd. and Resp. to Election Requirement, p. 1. The claims of the original application were amended so that every claim required a frequency variation circuit (though some dependant claims also required a soft start circuit) and a divisional application was filed where every claim required a soft start circuit (though some dependant claims also required a

frequency variation circuit). The original application (with the frequency variation circuit claims) issued as the '851 Patent while the divisional application (with the soft start circuit claims) issued as the '366 Patent.

During prosecution, Power Integrations expanded the scope of its claims. Not content with claiming its alleged invention – a PWM device with a second, low frequency oscillator used in the soft start and frequency variation circuits – Power Integrations broadly claimed any PWM device that incorporates either a soft start circuit or a frequency variation circuit.

Since Power Integrations' broadened claims are clearly invalid in light of the admitted prior art, Power Integrations now seeks a convoluted, litigation inspired claim construction that Power Integrations hopes will avoid the prior art but still read on the accused Fairchild devices. Power Integrations' proposed claim construction is unsupported – indeed, often contradicted – by the intrinsic evidence and should, therefore, be rejected.

B. The Court should interpret "soft start circuit" in light of the intrinsic evidence.

The parties propose radically different constructions for the term "soft start circuit". Fairchild's simple construction relies on the intrinsic evidence – specifically, the specification of the '366 and '851 Patents, which unambiguously define what is meant by "soft start". In contrast, Power Integrations argues that "soft start circuit" should be construed in means-plus-function terms, pursuant to 35 U.S.C. § 112 ¶ 6. Power Integrations is wrong as a matter of law.

Fairchild's Construction	Power Integrations' Construction
A "soft start circuit" is a circuit that minimizes inrush currents at start up.	Soft start circuit should be construed according to 35 U.S.C. § 112 ¶ 6 to include the circuit structures disclosed in the specification for performing the recited functions, and equivalents thereof. The corresponding structures for the "soft start circuit" are disclosed in the specification of the '851 patent at: Col. 5, line 66 – Col. 6, line 9; Col. 6, lines 25-Col. 7, line 8; Col. 11, line 64-Col. 12, line 2. The specification expressly excludes from the definition of "soft start circuit" prior art circuits using an external "soft start capacitor." *See* Col. 2, line 58-Col. 3, line 8.

1. A "soft start circuit" is a "circuit that minimizes inrush current at start up."

The specification of the '366 and '851 Patents unambiguously state that "soft start functionality is termed to be a functionality that reduces the inrush currents at start up." '366 Patent, 2:66-67. A "soft start circuit", thus, is simply "a circuit that minimizes inrush currents at start up." *See Phillips*, 415 F.3d at 1316 ("our cases recognize that the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs.").

Fairchild's proposed construction is consistent with the language of the claims. All of the claims that include a soft start element further define how this soft start circuit operates. Specifically, the soft start circuit causes the drive circuit to disable the drive signal during "***a portion***" of the time the drive signal would otherwise exist. *See* '366 Patent, Claims 1 and 9 and '851 Patent 4 and 13. Since the drive signal controls whether the switch is open or closed, by disabling the drive signal during a portion of the time it would otherwise be enabled, the soft start circuit minimizes inrush currents at start up.

Far from "expressly exclude" soft start capacitor **(110)**, the '366 Patent teaches specifically how to best use soft start capacitor **(110)**. Because soft start capacitor **(110)** only disables the drive signal during "at least a portion" of the time it would otherwise be on, the '366 Patent recommends using a more robust transformer with a higher core size:

> The approach described above [utilizing soft start capacitor (110)] will reduce the inrush currents into the power supply, however, it will be several cycles before the light emitting diode 115 will begin conducting. During the several cycles the maximum inrush current will still flow through the primary winding and other secondary side components. During these cycles the transformer may saturate, and therefore the transformer may have to be designed utilizing a higher core size than would be required for normal operation even with the use of soft start capacitor as in FIG. 1.

'366 Patent, 3:11-17.

2. Power Integrations improperly suggests that a "soft start circuit" is a means-plus-function element.

Seeking to avoid the prior art and preserve the validity of its claims, Power Integrations argues that the "soft start circuit" element should be construed in means-plus-function terms. By doing so, Power Integrations seeks to limit a "soft start circuit" to the particular embodiments

disclosed in the specification of the '366 Patent. Power Integrations is wrong as a matter of law.

"The claim term in question does not expressly use the word 'means,' thereby invoking the presumption that § 112, P 6 does not apply." *Phillips*, 363 F.3d at 1212 (footnote omitted). Thus, the burden is on Power Integrations to prove "that the claim fails to 'recite sufficiently definite structure' or recites 'a function without reciting sufficient structure for performing that function.'" *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1320 (Fed. Cir. 2004).

Power Integrations cannot meet its burden of proving that the "soft start circuit" element is means-plus-function. "In deciding whether [the] presumption has been rebutted, the focus remains on whether the claim as properly construed recites sufficiently definite structure to avoid the ambit of § 112, P 6." *Semitool, Inc. v. Novellus Sys.*, 44 Fed. Appx. 949, 956 (Fed. Cir., 2002). Here, the claims provide the specific structure by which the soft start is implemented:

Claim	Construction
a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said on-state of said maximum duty cycle **'366 Patent, claim 1**	A circuit that minimizes inrush currents at start up by providing a signal instructing the drive circuit to disable the drive signal during at least a portion of the on-state of the maximum duty cycle signal.
a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said maximum time period **'366 Patent, claim 9**	A circuit that minimizes inrush currents at start up by providing a signal instructing the drive circuit to disable the drive signal during at least a portion of the maximum time period.
a soft start circuit that provides a signal instructing said drive circuit to discontinue said drive signal when said magnitude of said oscillation signal is greater than a magnitude of said frequency variation signal **'851 Patent, claim 4**	A circuit that minimizes inrush currents at start up by providing a signal instructing the drive circuit to discontinue the drive signal when the magnitude of the oscillation signal is greater than a magnitude of the frequency variation signal.
a soft start circuit that provides a signal instructing said drive circuit to discontinue said drive signal according to a magnitude of said frequency variation signal **'851 Patent, claim 16**	A circuit that minimizes inrush currents at start up by providing a signal instructing the drive circuit to disable the drive signal according to a magnitude of the frequency variation signal.

The Federal Circuit considered precisely this issue – whether a claim for a "circuit" in a PWM device was means-plus-function – and held that § 112 did not apply. *See Linear Tech.*,

379 F.3d at 1316. Like Power Integrations, plaintiff Linear Technology asserted a patent claiming a PWM device. As in Power Integrations' claims, the claims of Linear's patent required a "circuit" for performing a specific task. In that case, the district court accepted Linear's argument (repeated now by Power Integrations) that the "circuit" elements were means-plus-function limitations. The Federal Circuit reversed the district court's construction:

> "To help determine whether a claim term recites sufficient structure, we examine whether it has an understood meaning in the art." Technical dictionaries, which are evidence of the understandings of persons of skill in the technical arts, plainly indicate that the term "circuit" connotes structure. For example, The Dictionary of Computing 75 (4th ed. 1996) defines "circuit" as "the combination of a number of electrical devices and conductors that, when interconnected to form a conducting path, fulfill some desired function." *See* Rudolf F. Graf, Modern Dictionary of Electronics 116 (7th ed. 1999) (defining "circuit" as "the interconnection of a number of devices in one or more closed paths to perform a desired electrical or electronic function"). ***Thus, when the structure-connoting term "circuit" is coupled with a description of the circuit's operation, sufficient structural meaning generally will be conveyed to persons of ordinary skill in the art, and § 112 ¶ 6 presumptively will not apply.***

Linear, 379 F.3d at 1320 (citations omitted) (emphasis added). "The term 'circuit' with an appropriate identifier such as 'interface,' 'programming' and 'logic,' certainly identifies some structural meaning to one of ordinary skill in the art." *See Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1371-72 (Fed. Cir. 2003).

The *Linear* case is particularly instructive because the Federal Circuit relied, in part, on the declarations and expert reports of Robert Blauschild – Power Integrations' expert. Contrary to the argument Power Integrations now makes, in the *Linear* case Mr. Blauschild persuasively explained that a "circuit" element has sufficient structure that it should not be construed as a means-plus-function limitation:

> That persons of ordinary skill in the art would understand the structural arrangements of circuit components from the term "circuit" coupled with the qualifying language of claim 1 was recognized by Linear's expert witness. *See* Claim Construction Order, slip op. at 2-3 (quoting the declaration of Dr. [sic, Mr.] Blauschild that a person of ordinary skill in the art reading the claims "would have an understanding of, and would be able to draw, structural arrangements of the circuit elements defined by the claims.").

Linear, 379 F.3d at 1320. It is disingenuous for Mr. Blauschild to reverse his position simply because it serves the interests of his present client for him now to opine that a "circuit" element

should be construed in means-plus-function form.

3. **Were the Court to construe the "soft start circuit" elements as means-plus-function limitations, all of the embodiments in the specification must be considered.**

The "soft start circuit" limitations of the '366 and '851 Patents should not be construed in means-plus-function form. Were the Court to hold otherwise, however, "the recited function within that limitation must first be identified. 'Then, the written description must be examined to determine the structure that corresponds to and performs that function.'" *See Gemstar-TV Guide Int'l, Inc. v. ITC*, 383 F.3d 1352, 1361 (Fed. Cir. 2004).

As set forth in claims 4 and 16 of the '851 Patent, the function of the "soft start circuit" is to provide a signal that instructs the drive circuit to disable the drive signal. Whether or not the soft start circuit causes the drive signal to be disabled depends on a frequency variation signal. The corresponding structure is illustrated in Figures 3, 6, and 9 of the '851 Patent:

Claim	Function	Corresponding Structure
a soft start circuit that provides a signal instructing said drive circuit to discontinue said drive signal when said magnitude of said oscillation signal is greater than a magnitude of said frequency variation signal **'851 Patent, claim 4**	providing a signal instructing the drive circuit to discontinue the drive signal when the magnitude of the oscillation signal is greater than a magnitude of the frequency variation signal.	start up/soft start block **(410)** and low frequency oscillator **(405)** shown in Figures 3, 6, and 9, and the corresponding portions of the specification describing these structures.
a soft start circuit that provides a signal instructing said drive circuit to discontinue said drive signal according to a magnitude of said frequency variation signal **'851 Patent, claim 16**	providing a signal instructing the drive circuit to disable the drive signal according to a magnitude of the frequency variation signal.	start up/soft start block **(410)** and low frequency oscillator **(405)** shown in Figures 3, 6, and 9, and the corresponding portions of the specification describing these structures.

As shown in Figures 3, 6, and 9 of the '851 Patent, a low frequency oscillator **(405)** generates a frequency variation signal **(400)**. Frequency variation signal **(400)** is provided to start up/soft start circuit **(410)**. Start up/soft start circuit **(410)** compares the magnitude of frequency variation signal **(400)** with the magnitude of pulse width modulation signal **(415)**, which is generated by a second PWM oscillator **(480)**. During the time that the magnitude of pulse width modulation signal **(415)** is greater than the magnitude of frequency variation signal

(400), start up/soft start circuit **(410)** generates a signal instructing drive circuit **(615)** to disable drive signal **(610)**. *See* '851 Patent, 6:39-56.

Therefore, if the "soft start circuit" elements of claims 4 and 16 of the '851 Patent are construed as means-plus-function limitations, then the corresponding structure disclosed in the '851 Patent that performs the recited function of instructing the drive circuit to disable the drive signal based on the frequency variation signal is the combination of start up/soft start circuit **(410)** and low frequency oscillator **(405)**, which provides frequency variation signal **(400)**, and equivalents thereto. Indeed, Power Integrations agrees that this portion of the specification describes the structure corresponding to the function required by the "soft start circuit" element of claims 4 and 16 of the '851 Patent.[5] *See* Exh. B.

The "soft start circuit" element of claims 1 and 9 of the '366 Patent are broader than those of claims 4 and 16 of the '851 Patent. While the claims of the '851 Patent require that the "soft start circuit" disable the drive signal based on the frequency variation signal, the claims of the '366 Patent do not require a frequency variation signal. Therefore, while the combination of start up/soft start circuit **(410)** and low frequency oscillator **(405)** would be one corresponding structure, the '366 Patent discloses an alternative structure that performs the function recited by the "soft start circuit" – soft start capacitor **(110)** illustrated in Figure 1:

Claim	Function	Corresponding Structure
a soft start circuit that provides a signal instructing said drive circuit to disable said drive signal during at least a portion of said on-state of said maximum duty cycle **'366 Patent, claim 1**	providing a signal instructing the drive circuit to disable the drive signal during at least a portion of the on-state of the maximum duty cycle signal.	(i) the circuit shown in Figure 1, including soft start capacitor **(110)** (ii) the soft start block **(410)** and low frequency oscillator **(405)** shown in Figures 3, 6, and 9 (iii) the corresponding portions of the specification describing these structures.
a soft start circuit that provides a signal instructing	providing a signal instructing the drive	(i) the circuit shown in Figure 1, including soft start capacitor **(110)**

[5] In addition to this passage, Power Integrations argues that other portions of the specification describe corresponding structures for the "soft start circuit" element. The other portions recited by Power Integrations, however, do not describe any structure. Regardless, even were these other passages instructive, Power Integrations agrees that the portion of the specification of the '851 Patent describing how low frequency oscillator **(405)** meets the function of the "soft start circuit" claim element recites the corresponding structure for that element.

[illegible]	[illegible]	[illegible]
said drive circuit to disable said drive signal during at least a portion of said maximum time period **'366 Patent, claim 9**	circuit to disable the drive signal during at least a portion of the maximum time period.	(ii) the soft start block **(410)** and low frequency oscillator **(405)** shown in Figures 3, 6, and 9 (iii) the corresponding portions of the specification describing these structures.

The specification of the '366 Patent teaches that, as illustrated in Figure 1, soft start capacitor **(110)** provides a signal that instructs the drive circuit to disable the drive signal during at least a portion of either (i) the on-state of the maximum duty cycle signal or (ii) the maximum time period. Specifically, without soft start capacitor **(110)** and at start up, current could flow through the switch shown in Figure 1 during the on-state of the maximum duty cycle signal. By adding soft start capacitor **(110)** to Figure 1, the drive signal is disabled during a portion of the on-state of the maximum duty cycle period:

> Inrush currents are minimized at start up by use of soft start capacitor 110. Soft start functionality is termed to be a functionality that reduces the inrush currents at start up. At this instant a current begins to flow through feedback resistor 80 and thereby into soft start capacitor 110. As the voltage of soft start capacitor 110 increases slowly, current will flow through light emitting diode 115 of optocoupler 70 thereby controlling the duty cycle of the switch. Once the voltage of the soft start capacitor 110 reaches the reverse breakdown voltage of zener diode 75 current will flow through zener diode 75.

'366 Patent, 2:65-3:17. Indeed, the '366 Patent describes Figure 1, which includes soft start capacitor 110, as "a known power supply utilizing… external soft start…." '366 Patent, 4:46-47.

Therefore, if the "soft start circuit" elements of claims 1 and 9 of the '366 Patent are construed as means-plus-function limitations, the corresponding structures disclosed in the '366 Patent that perform the recited function of instructing the drive circuit to disable the drive signal during some portion of the maximum time period are (i) soft start capacitor **(110)** shown in Figure 1, (ii) is the combination of start up/soft start circuit **(410)** and low frequency oscillator **(405)**, and equivalents to these two structures.

4. Power Integrations improperly seeks to exclude embodiments disclosed in the '366 Patent.

a. As a matter of law, means-plus-function terms include all corresponding structures disclosed in the specification, even those that are in the prior art.

Power Integrations does not dispute that soft start capacitor **(110)** performs the recited function of a "soft start circuit". Were the "soft start circuit" element to be construed as a means-plus-function claim, soft start capacitor **(110)** would be a corresponding structure.

Indeed, the Federal Circuit has specifically held that a prior art structure – such as soft start capacitor **(110)** – can be an embodiment of a means-plus-function claim. *See Clearstream Wastewater Systems, Inc. v. Hydro-Action, Inc.*, 206 F.3d 1440 (Fed. Cir. 2000). In *Clearstream*, the asserted patent disclosed two structures corresponding to the recited function of the means-plus-function claim element. Like the '366 Patent, one of the *Clearstream* structures was prior art and the other was the alleged invention. As here, the *Clearstream* patent described disadvantages of the prior art structure, which Clearstream claimed the novel structure overcame:

> The district court reasoned that because the patent discloses the disadvantages of the prior art, rigid-conduit structure and reveals inventive features, such as the flexible-hose, that are meant to overcome those disadvantages, then the prior art structure could not be considered a supporting structure or its equivalent for purposes of 35 U.S.C. § 112, ¶ 6 (1994).

Clearstream, 206 F.3d at 1444.

The Federal Circuit reversed the district court's claim construction and held that the prior art structure should be included as a corresponding structure for the means-plus-function limitation, ***even if the patent describes disadvantages of this prior art***:

> Clearly, the written description does point out the disadvantages of the rigid-conduit system and the advantages of the flexible-hose system. However, the written description does not require that only the new, flexible-hose system, but not the old, rigid-conduit system, could be used in the claimed wastewater treatment plant. It is well established in patent law that a claim may consist of all old elements, such as the rigid-conduit system, for it may be that the combination of the old elements is novel and patentable. Similarly, it is well established that a claim may consist of all old elements and one new element, thereby being patentable.

Clearstream, 206 F.3d at 1445 (citations omitted). Thus, there is no basis for Power Integrations to argue that prior art soft start capacitor **(110)** should be excluded as a structure corresponding to the "soft start circuit" limitations of claims 1 and 9 of the '366 Patent.

b. A capacitor is a soft start circuit that suppresses inrush currents during "a portion" of start up time.

As set forth above and required by the claims, the "soft start circuit" need only suppress

inrush currents during "a portion" of time. Nothing requires that the "soft start circuit" suppress the inrush currents from the very first clock cycle of start up. Indeed, had Power Integrations meant to claim such a narrow embodiment, it could have done so by expressly including the limitation that the soft start circuit begin at the very first clock cycle. Having elected not to do so, Power Integrations cannot now narrow its claims to avoid a finding of invalidity.

There is no support for Power Integrations' argument that the specification of the '366 Patent somehow excludes soft start capacitor **(110)** as a corresponding structure that performs the function recited by the "soft start circuit" element of claims 1 and 9. As set forth above, the recited function is to provide a signal instructing the drive circuit to disable the drive signal during "***at least a portion***" of the time it would otherwise be on. The specification of the '366 Patent unambiguously teaches that soft start capacitor **(110)** performs this function. "Inrush currents are minimized at start up by use of soft start capacitor 110." '366 Patent, 2:65-66. Thus, soft start capacitor **(110)** is one structure capable of performing the recited function of the "soft start circuit" elements of claims 1 and 9 of the '366 Patent. Indeed, as set forth above, the '366 Patent expressly teaches how to implement soft start capacitor **(110)**. '366 Patent, 3:11-17.

C. The Court Should Not Incorporate Additional Limitations from the Preferred Embodiment Into the "Frequency Variation Signal" Element.

Claims 5 and 14 of the '366 Patent and claims 1 and 11 of the '851 Patent all require the same "frequency variation circuit that provides a frequency variation signal." The parties agree that "a frequency variation circuit" is "a structure that provides the frequency variation signal". *See* Exh. A. The parties disagree, however, as to what a "frequency variation signal" is.

1. Consistent with the intrinsic evidence, a "frequency variation signal" is a signal that is used to vary the frequency of the oscillation signal.

Fairchild's Construction	Power Integrations' Construction
A "frequency variation signal" is a signal used to vary the frequency of the oscillation signal.	A frequency variation signal is an internal signal that cyclically varies in magnitude during a fixed period of time and is used to modulate the frequency of the oscillation signal within a predetermined frequency range.

The "frequency variation signal" term should be given its plain and ordinary meaning – *i.e.*, a signal that is used to vary the frequency of the oscillation signal. This is consistent with

the other claim terms. For instance, the oscillator element makes clear that the frequency variation signal is used by the oscillator to vary the frequency of the oscillation signal:

> an oscillator that provides an oscillation signal having a frequency range, said frequency of said oscillation signal varying within said frequency range according to said frequency variation signal....

'851 Patent, Claims 1 and 11; *see also* '366 Patent, Claim 4 and 16. Thus, Fairchild's proposed construction is mandated by the intrinsic evidence.

Fairchild's proposed construction is also required by the specifications of the '851 and '366 Patents. In these specifications, Power Integrations described a prior art frequency variation circuit (140) and frequency variation signal (135). '851 Patent, 3:9-30. Power Integrations states that "the jitter current 135 is used to vary the frequency of the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch 90." '851 Patent, 3:14-17. As required by the specification, the "frequency variation signal" should be construed as a signal used to vary the frequency of the oscillation signal.

2. Power Integrations' proposed construction of "frequency variation signal" improperly imports limitations from the preferred embodiment.

In an effort to preserve the validity of its claims, Power Integrations improperly seeks to import additional limitations to narrowly construe the term "frequency variation signal". Power Integrations argues that "a frequency variation signal is an internal signal that cyclically varies in magnitude during a fixed period of time and is used to modulate the frequency of the oscillation signal within a predetermined frequency range." *See* Exh. B. There is no support for any of these additional limitations:

> Though understanding the claim language may be aided by the explanations contained in the written description, ***it is particularly important not to import into a claim limitations that are not part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.***

Resonate Inc. v. Alteon Websystems, 338 F.3d 1360, 1364-1365 (Fed. Cir. 2003) (emph. added).

Power Integrations' preferred embodiment utilizes a second, low frequency oscillator to generate a frequency variation signal. In this embodiment, the frequency variation signal would

be internal, vary cyclically during a fixed time period, and result in modulation of the oscillation signal within a predetermined range – the limitations Power Integrations now seeks to incorporate into the "frequency variation signal" element. Power Integrations' claims, however, are broader than this embodiment. It is black-letter law that having elected to broadly claim any frequency variation signal, Power Integrations cannot now seek to import limitations from the preferred embodiment to avoid the prior art. *See e.g. Resonate*, 338 F.3d at 1364-1365.

a. **The frequency variation signal need not be internal.**

The first limitation Power Integrations seeks to import is that the frequency variation signal be "an internal signal". Not only is there no support for this limitation, it is flatly contradicted by the intrinsic evidence. First, the claim language simply does not require that the frequency variation signal be internal. Instead, Power Integrations broadly claimed a frequency variation signal that could be either internal (for instance, signal **(400)** shown in Figures 3, 6, and 9) or external (for instance, signal **(135)** shown in Figure 1). This was not inadvertent. In their specification, the Applicants describe both internal and external frequency variation signals:

> Alternatively, or in addition to soft start functionality, pulse width modulated switch **262** may also have frequency jitter functionality. That is, the switching frequency of the pulse width modulated switch **262** varies according to an internal frequency variation signal. This has an advantage over the frequency jitter operation of FIG. 1 in that the frequency range of the presently preferred pulse width modulated switch **262** is known and fixed, and is not subject to the line voltage or load magnitude variations.

'366 Patent, 6:18-26.

Power Integrations' argument is also contradicted by the other claims of the '366 and '851 Patents. For instance, the frequency variation circuit and frequency variation signal are elements of independent claims 1 and 11 of the '851 Patent. These broad independent claims do not require that any particular signal or circuitry be "internal". Subsequently, dependant claims 2 and 16 add the limitation that the frequency variation circuit (and, thus, the frequency variation signal) be "monolithic".[6] Under the doctrine of claim differentiation, either (i) the frequency

6 The parties have agreed that "monolithic" refers to "a device constructed from a single crystal or other single piece of material." *See* Exh. A.

variation signal need not be internal (as this is required by the later "monolithic" claims) or (ii) a "monolithic" device can incorporate external components and signals. *See Karlin Tech., Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 971-972 (Fed. Cir. 1999) (doctrine of claim differentiation means that limitations stated in dependent claims are not to be read into the independent claim from which they depend).

Power Integrations' argument is contradicted by the '851 Patent's prosecution history. During prosecution, the Examiner specifically held that external resistor **(140)** – which generates external frequency variation signal **(135)** – was the claimed "frequency variation circuit" and, as such, generates the claimed frequency variation signal. Exh. P, Office Action (12/13/99), p. 4. Any proposed construction that excludes external resistor **(140)** and external frequency variation signal **(135)** is contrary to this intrinsic evidence and must be rejected. *See Resonate*, 338 F.3d at 1364-1365. Thus, the "frequency variation signal" cannot be limited to internal signals.

For all of these reasons, the Court should not read into the construction of "frequency variation signal" the limitation from the preferred embodiment that the signal must be internal.

b. The frequency variation signal need not vary cyclically in magnitude during a fixed period of time.

The second limitation that Power Integrations seeks to import is that the "frequency variation signal" "cyclically varies in magnitude during a fixed period of time." *See* Exh. B. This is expressly contrary to the specification of the '851 Patent, which indicates that the frequency variation signal can be any signal (including non-cyclic signals) that "vary in magnitude during a fixed period of time." '851 Patent, 6:37-38.

The limitation that the frequency variation signal cyclically vary is found only in the preferred embodiment – not in the claims. In the preferred embodiment, the frequency variation circuit is a low frequency oscillator **(405)** that generates a frequency variation signal **(400)**. This low frequency oscillation signal would – by definition – cyclically vary in magnitude during a fixed period of time. It is, however, "one of the cardinal sins of patent law [to read] a limitation from the written description into the claims." *SciMed Life Sys. v. Advanced Cardiovascular Sys.*,

Inc., 242 F.3d 1337, 1340 (Fed. Cir. 2001).

The doctrine of claim differentiation provides further reason why the claimed "frequency variation signal" cannot be limited to a signal that cyclically varies in magnitude during a fixed period of time. Indeed, this limitation was added by later dependant claims 3 and 12, which require a second, low frequency oscillator that would generate a frequency variation signal that varies cyclically in magnitude during a fixed period of time. *Compare* '851 Patent, Claims 1 and 11 with Claims 3 and 12. For these dependant claims to have meaning, the broader independent claim cannot be interpreted to require a frequency variation signal that varies cyclically in a fixed time period. *See* Karlin, 177 F.3d at 971-972.

Power Integrations seeks to add the requirement that the frequency variation signal cyclically varies in magnitude during a fixed period of time to argue that resistor **(140)** is not a frequency variation circuit. Since the prosecution history establishes that resistor **(140)** is a frequency variation circuit, the claims cannot be construed to contradict this intrinsic evidence. Exh. P, Office Action (12/13/99), p. 4.

Therefore, the Court should not require that the frequency variation circuit generate a frequency variation signal that cyclically varies in magnitude during a fixed period of time.

c. **The frequency variation signal need not be used to modulate the frequency of the oscillation signal within a predetermined frequency range.**

The final limitation that Power Integrations seeks to import into the claims is that the "frequency variation signal" be "used to modulate the frequency of the oscillation signal within a predetermined frequency range." *See* Exh. B. There is no basis – and no support in the intrinsic evidence – for this construction.

The claims of the '366 and '851 patent include an oscillator that provides an oscillation signal. *See* '366 Patent, Claims 1 and 9; '851 Patent, Claims 1 and 11. For the "frequency variation circuit" claims, the frequency of the oscillation signal will vary within a frequency range. *See*, '366 Patent, claims 5 and 14; '851 Patent, claims 1 and 11. There is no requirement, however, that the frequency range of the oscillation signal be "predetermined".

To the contrary, the specifications of the '851 and '366 Patents make clear that the frequency variation signal can vary the frequency of the oscillation signal in any fashion – including varying in a range that is not "predetermined". "The jitter current **135** is used to vary the frequency of the saw-toothed waveform generated by the oscillator contained in the pulse width modulated switch **90**." '366 Patent, 3:23-26.

Power Integrations seeks to add the limitation that the frequency range be "predetermined" in order to later argue that resistor **(140)** is not a frequency variation circuit. The prosecution history, however, makes clear that resistor **(140)** is a frequency variation circuit. Any construction that is contrary to this intrinsic evidence must be rejected.

V. U.S. Patent No. 6,249,876.

A. Background.

On May 21, 1998 – three days after Power Integrations filed the application leading to the '366 and '851 Patents – Power Integrations purports to have invented the device claimed in its '876 Patent. In describing the "prior art" to that invention, Power Integrations criticizes its alleged "invention" of the '851 and '366 Patents, stating that it is difficult or impossible to make a PWM device with a second, low frequency oscillator:

REDACTED

Exh. Q, '851/'366 Invention Disclosure. Power Integrations' '876 Patent disapproves of the alleged inventions of the '366 and '851 Patents and claims a new frequency variation circuit.

The asserted claims of the '876 Patent are either extremely broad or incredibly narrow. Both situations create problems for Power Integrations; the broad claims are clearly invalid in light of the prior art while the narrow claims are neither enabled by the '876 Patent nor infringed

by Fairchild. Power Integrations improperly seeks to solve these problems through a convoluted and unsupportable claim construction that should be rejected.

B. The Court should interpret "frequency jitter" as defined in the '876 Patent.

Fairchild's Construction	Power Integrations' Construction
"Frequency jittering" is varying the frequency of operation of the pulse width modulated switch by varying the oscillation frequency of the oscillator.	Frequency jitter in the context of the patent is a controlled and predetermined change or variation in the frequency of a signal.

The parties dispute the construction of the term "frequency jitter". This term, however, is expressly defined in the specification of the '851 Patent:

> Varying the frequency of operation of the pulse width modulated switch by varying the oscillation frequency of the oscillator is referred to as frequency jitter.

'851 Patent, 3:28-30. Since the specification of the '851 Patent was incorporated by reference into the specification of the '876 Patent ('876 Patent, 6:6-12), this unambiguous definition of "frequency jitter" is part of the intrinsic evidence. *Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316 (Fed. Cir. 2001) ("When a document is 'incorporated by reference' into a host document, such as a patent, the referenced document becomes effectively part of the host document as if it were explicitly contained therein."). Thus, the Court should construe "frequency jittering" as "varying the frequency of operation of the pulse width modulated switch by varying the oscillation frequency of the oscillator." *See Phillips*, 415 F.3d at 1316.

Rather than accept the clear definition found in the specification of the '851 Patent (incorporated by reference into the '876 Patent), Power Integrations seeks to add the additional limitations that the jitter be "controlled and predetermined". While this may be a characteristic of the preferred embodiment, it is inappropriate for Power Integrations to seek to import this limitation into the claims. *See Resonate*, 338 F.3d at 1364-1365.

C. The Court should give "coupled" its plain and ordinary meaning.

Fairchild's Construction	Power Integrations' Construction
Two circuits are coupled when they are configured such that signals pass from one to the other.	Power Integrations does not believe this term requires construction. It should be subject to plain, English-language interpretation. If the Court believes this term requires construction, though, Power Integrations proposes the following construction:

	Two circuits are coupled when they are connected such that voltage, current, or control signals pass from one to the other.

Two circuits are "coupled" when they are configured such that signals pass from one to the other. This is the ordinary meaning of the term and is supported by the intrinsic evidence. While "coupled" would include a direct connection between circuit elements, it is broader than that. For instance, the '876 Patent refers to elements that are "magnetically coupled". '876 Patent, 8:5-7 ("A secondary winding 922 is magnetically coupled in series across a primary winding of a transformer 920."). Further, circuit elements can be coupled together even if there are additional, intermediary elements so long as signals pass from one to the other. "The court notes that the ordinary and accustomed meaning of the term 'couple,' even when used in an electronics context does not solely mean 'directly coupled.'" *Silicon Graphics v. nVIDIA Corp.*, 58 F. Supp. 2d 331 (D. Del. 1999).

The term "coupled" should not be limited to direct, physical connections. Indeed, were "coupled" to require the direct connection proposed by Power Integrations, then transformer windings (which are not directly connected to each other) would not be "coupled". Thus, Power Integrations' proposed construction is contradicted by the specification of the '876 Patent, which describes such magnetically coupled windings. '876 Patent, 8:5-7.

D. The voltages and voltage sources elements of claims 17-19 must be considered together when construed.

Claims 17-19 of the '876 Patent are method claims that recite steps for generating a switching frequency in a power conversion system. Essentially, a variety of voltages are generated by a variety of voltage sources. These voltages are combined and supplied to the control terminal of a voltage-controlled oscillator. The frequency of the signal generated by the oscillator varies based on the voltage received at the control terminal of the oscillator. Thus by varying the combined voltages, the frequency of the oscillator can be changed.

The claims require three different voltages – (i) a primary voltage, (ii) a secondary voltage that varies over time, and (iii) a supplemental voltage that is lower than the primary

voltage. *See* '876 Patent, claims 17 and 19. In order to later argue that Fairchild infringes, Power Integrations proposes an improper construction that blurs the distinction between these three distinct voltages. Essentially, Power Integrations proposes that these distinct terms can refer to the same voltage. This is incorrect as a matter of law since each claim term should be given meaning. *Karlin*, 177 F.3d 968, 971-972 (Fed. Cir. 1999) ("common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope").

1. The "primary voltage" is a voltage generated by the primary voltage source.

Fairchild's Construction	Power Integrations' Construction
A primary voltage is the voltage generated by the primary voltage source.	A primary voltage is a base or initial voltage. Nothing in the patent limits this term to a voltage generated solely by a "primary voltage source."

The first of the three voltages is the "primary voltage". This term should be given its plain and ordinary meaning – the voltage generated by the primary voltage source. While Power Integrations agrees that the primary voltage is "a base or initial voltage", Power Integrations argues that the primary voltage is not generated by a primary voltage source. Exh. B.

Power Integrations argument is nonsensical. The primary voltage did not spring into being from nothing. Instead, it, like all voltages, is generated by a voltage source. By definition, the source of the primary voltage is the "primary voltage source".

Power Integrations ignores the obvious – that the primary voltage is the voltage generated by the primary voltage source. Instead, Power Integrations seeks to blur the distinction between primary and secondary voltages by arguing that the primary voltage could be generated by the "secondary voltage source". This is nonsensical. As set forth in Claim 17, the voltage generated by the secondary voltage sources is the aptly named "secondary voltage". '876, Claim 17 ("cycling one or more secondary voltage sources ***to generate a <u>secondary voltage</u>*** which varies over time…"). Thus, the primary voltage cannot be generated by the secondary voltage sources.

2. The "secondary voltage" is a voltage generated by the secondary voltage sources.

Fairchild's Construction	Power Integrations' Construction
A secondary voltage is a voltage generated by the secondary voltage sources.	Plain meaning: secondary voltage is a subsequent or additional voltage.
Secondary voltage sources are additional voltage sources distinct from the primary voltage source.	A voltage source is a source, i.e. a place of procurement or a supply, of voltage and may include, for example, a resistor having a substantially constant current flowing through it. A secondary voltage source is a source of a secondary voltage. Nothing in the claims or specification requires the secondary voltage source be independent from the source of the primary voltage.

"Secondary voltage" should also be given its plain and ordinary meaning – a voltage generated by the secondary voltage sources. This is, in fact, how it is defined by Claim 17:

> cycling one or more secondary voltage sources to generate a secondary voltage which varies over time....

'876 Patent, Claim 17.

Power Integrations rejects this intrinsic evidence and argues that a "secondary voltage" is "a subsequent or additional voltage". Because Power Integrations' proposed construction does not explain what the secondary voltage is "subsequent or additional" to, Power Integrations' construction is fatally vague and should be rejected by the Court.

3. The "secondary voltage sources" are distinct from the primary voltage source.

Claim 17 requires both a "primary voltage" (generated by a primary voltage source) and a "secondary voltage" (generated by one or more secondary voltage sources). Thus, it is clear that the claimed "secondary voltage sources" must be distinct from the source of the primary voltage. If this were not the case, there would be no distinction between the "primary voltage" and the "secondary voltage". This would be wrong as a matter of law since distinct claim terms should have different meanings. *See Karlin*, 177 F.3d 968, 971-972 (Fed. Cir. 1999).

While Power Integrations concedes that a "secondary voltage source" is the source of the "secondary voltage", it incorrectly insists that the claimed "secondary voltage source" may be the same as the source of the primary voltage. This may be necessary for Power Integrations'

infringement allegations, but it is unsupported – and unsupportable – by the intrinsic evidence.

Further, Power Integrations argues that the secondary voltage source may include "a resistor having a substantially constant current flowing through it." There is absolutely no support for this construction. There is no teaching in the claims, the specification, or the prosecution history that a resistor can be a ***source*** of a voltage. Indeed, Power Integrations has offered no evidence whatsoever to support this unusual construction.

4. The "supplemental voltage" is simply a voltage other than the primary or secondary voltages.

Fairchild's Construction	Power Integrations' Construction
A supplemental voltage is a voltage other than the primary or secondary voltages.	Power Integrations does not believe this term requires construction. It should be subject to plain, English-language interpretation. If the Court believes this term requires construction, though, Power Integrations proposes the following construction: A voltage in addition to the primary voltage. Nothing in the intrinsic evidence suggests that a "supplemental voltage" must be different from the "secondary" voltage.

Claim 19 depends from Claim 17 and, thus, incorporates all of the elements of Claim 17. Claim 19 further requires a "supplemental voltage". Since each term in a claim is assumed to have meaning, this "supplemental voltage" must be a third voltage, distinct from either the primary or secondary voltages. This is precisely the construction proposed by Fairchild.

Power Integrations argues that the claimed "supplemental voltage" can be the same as the claimed "secondary voltage". Since different claim terms are understood to refer to different things, Power Integrations is wrong as a matter of law. *Karlin*, 177 F.3d at 971-72. Power Integrations proposed construction would remove the claim term "supplemental" and replace it with the claim term "secondary". This cannot be correct.

5. "Combining" voltages means adding together two or more different voltages.

Fairchild's Construction	Power Integrations' Construction
Combining is adding together from two or more different sources.	Power Integrations does not believe this term requires construction. It should be subject to plain, English-language interpretation. If the Court believes this term requires construction, though, Power Integrations proposes the following construction:

	Combining means adding together. There is nothing that requires the "different sources" added limitation of Fairchild's proposed construction.

According to the method of Claim 17, after the primary and secondary voltages are generated, they are combined together and this combined voltage is received at the oscillator's control input. The term "combining" then should be given its plain and ordinary meaning – adding together from two or more different sources.

Although Power Integrations agrees that "combining" means "adding together", Power Integrations disagrees that what is added together is from two or more different sources. Power Integrations' position makes neither logical nor grammatical sense. If two things are added together – which Power Integrations agrees is the appropriate meaning of "combining" – they must have first been distinct. Thus, as Fairchild has proposed, "combining" must refer to adding together from two or more different sources.

Moreover, Power Integrations' suggestion that "combining" does not require "different sources" is contradicted by the intrinsic evidence – the language of Claim 17. That claim requires that the "secondary voltage" be combined with the "primary voltage". Since the "secondary voltage" is distinct and separate from the "primary voltage" and, as set forth above, have distinct and separate sources, "combining" must be understood to mean "adding together from two or more different sources."

VI. CONCLUSION.

For the foregoing reasons, Fairchild respectfully requests that the Court adopt Fairchild's proposed construction of the disputed claim terms.

HIGHLY CONFIDENTIAL – ATTORNEYS' EYES ONLY

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Dated: December 28, 2005

CERTIFICATE OF SERVICE

I hereby certify that on the 5th day of January, 2006, the attached **REDACTED PUBLIC VERSION OF DEFENDANTS' OPENING CLAIM CONSTRUCTION BRIEF** was served upon the below-named counsel of record at the address and in the manner indicated:

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